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**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Masahide MIURA et al.

Group Art Unit: 1793

Application No.: 10/591,797

Examiner: A. ZIMMER

Filed: September 6, 2006

Docket No.: 129334

For: ZIRCONIA CORE PARTICLES COATED WITH CERIA PARTICLES,  
PRODUCTION PROCESS THEREOF AND EXHAUST GAS PURIFYING  
CATALYST

**RESPONSE TO RESTRICTION REQUIREMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In reply to the September 4, 2008 Restriction Requirement, Applicants provisionally elect Group III, claim 7, with traverse.

National stage applications filed under 35 U.S.C. §371 are subject to unity of invention practice as set forth in PCT Rule 13, and are not subject to U.S. restriction practice. See MPEP §1893.03(d). PCT Rule 13.1 provides that an "international application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept." PCT Rule 13.2 states:

Where a group of inventions is claimed in one and the same international application, the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

A lack of unity of invention may be apparent “*a priori*,” that is, before considering the claims in relation to any prior art, or may only become apparent “*a posteriori*,” that is, after taking the prior art into consideration. See MPEP §1850(II), quoting *International Search and Preliminary Examination Guidelines* (“ISPE”) 10.03. Lack of *a priori* unity of invention only exists if there is no subject matter common to all claims. *Id.* If *a priori* unity of invention exists between the claims, or, in other words, if there is subject matter common to all the claims, a lack of unity of invention may only be established *a posteriori* by showing that the common subject matter does not define a contribution over the prior art. *Id.*

Furthermore, unity of invention only needs to be determined in the first place between independent claims, and not the dependent claims, as stated in ISPE 10.06:

Unity of invention has to be considered in the first place only in relation to the independent claims in an international application and not the dependent claims. By “dependent” claim is meant a claim which contains all the features of one or more other claims and contains a reference, preferably at the beginning, to the other claim or claims and then states the additional features claimed (Rule 6.4).

See also MPEP §1850(II). ISPE 10.07 further provides:

If the independent claims avoid the prior art and satisfy the requirement of unity of invention, no problem of lack of unity arises in respect of any claims that depend on the independent claims. In particular, it does not matter if a dependent claim itself contains a further invention.

See also MPEP §1850(II).

Claim 1 is directed to a catalyst support particle comprising a core part and a surface layer. Claims 2-13 depend from claim 1.

Accordingly, all the claims share common subject matter and, therefore, *a priori* unity of invention exists between all the claims. Thus, for the present application, a lack of unity of invention may only be determined *a posteriori*, or in other words, after a search of the

prior art has been conducted and it is established that all the elements of the independent claim are known. *See* ISPE 10.07 and 10.08.

The Office Action does not establish that each and every element of the subject matter that is common to independent claim 1 is known in the prior art. Namely, the Office Action does not establish that the prior art discloses the catalyst support particle of claim 1. The Office Action asserts that Putna et al., Ceria Films on Zirconia Substrates: Models for Understanding Oxygen Storage Properties, *Catalysis Today* 50 (1999) 343-52, discloses ceria particles on zirconia where the ceria particles have a smaller diameter than the zirconia particles. See Office Action page 2. However, Putna does not disclose that the molar fraction of the metal constituting the first metal oxide in the core part is higher than the molar fraction of the metal constituting the first metal oxide in the surface layer, or that the molar fraction of the metal constituting the second metal oxide in the surface layer is higher than the molar fraction of the metal constituting the second metal oxide in the core part. Therefore, Applicants respectfully submit that lack of unity of invention has not been established, and thus a restriction requirement based on a lack of unity of invention is improper.

Reconsideration and withdrawal of the Restriction Requirement is respectfully  
requested.

Respectfully submitted,



James A. Oliff  
Registration No. 27,075

Nicolas A. Brentlinger  
Registration No. 62,211

JAO:NAB/kjl

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**OLIFF & BERRIDGE, PLC**  
**P.O. Box 320850**  
**Alexandria, Virginia 22320-4850**  
**Telephone: (703) 836-6400**

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